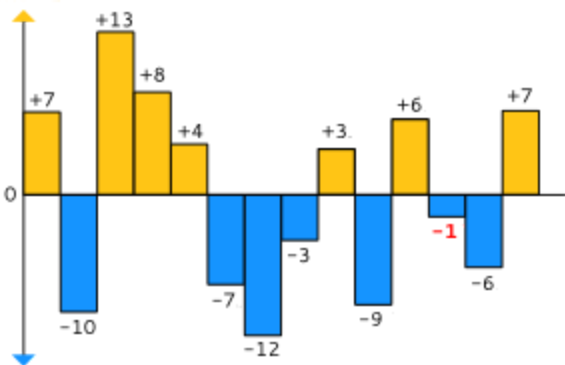


The Goal

In this exercise, you have to analyze records of temperature to find the closest to zero.



Sample temperatures

Here, -1 is the closest to 0.

Rules

Write a program that prints the temperature closest to 0 among input data. If two numbers are equally close to zero, positive integer has to be considered closest to zero (for instance, if the temperatures are -5 and 5, then display 5).

Game Input

Your program must read the data from the standard input and write the result on the standard output.

Input

Line 1: N, the number of temperatures to analyze

Line 2: The N temperatures expressed as integers ranging from -273 to 5526

Output

Display 0 (zero) if no temperatures are provided. Otherwise, display the temperature closest to 0.

Constraints

$0 \leq N < 10000$

Example

Input

5

1 -2 -8 4 5

Output

1

